



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D2891-1
Job Sheet 186181



Part No: D2891-1

Job Qty: 10 ea

Part Name: Support 2.25



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/12/18

Job Tracking No:

Due Date: 12/6/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B IPP C 02.11.26 Added P/O KJ IPP D 08.03.19 Re-format EC verified: DD IPP Rev:E 11.08.04 as per dwg rev.B DD verf:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea		12/6/18	0.00	0.00	Start Up Machining-1		Kt - 2018-12-30
100	CNC Vertical Machining	10 pcs		12/6/18	0.41	8.20	HAAS1-2		Kt 2018-12-30
110	QC	10 pcs		12/6/18	0.00	0.00	QC2 Machining-1		M.M. 2018-12-30
120	QC	10 pcs		12/6/18	0.00	0.00	QC8 Machining-1		19/01/08
130	Crosstubes	10 pcs		12/6/18	0.00	0.47	Crosstubes-2		AB 19-DA-8
140	QC	10 pcs		12/6/18	0.00	0.00	QC3		38
170	Packaging	10 pcs		12/6/18	0.00	0.00	Packaging3-1	LG050	AS 19-9-89
180	QC21-SA	10 Ea		12/6/18	0.00	0.00	QC21		21 JAN 14 2018

Part Op 100 - 1-Machine as per Folio FA046

Descriptions: 130 - Per note 8 on page 1 of dwg D2891, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24H of cure time. 135852 exp 4/19

170 - LOCATION : LG052

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
DSK076	D2891-1 Turning Detail	5 Ea (.5 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	DSK076	5	5	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	2.250 Support	0.188Inches ± 0.000	0.000 0.188		
2	2.250 Support	0.240Inches ± 0.000	0.000 0.240		
3	2.250 Support	0.115Inches ± 0.000	0.000 0.115		
4	2.250 Support	0.040Inches ± 0.000	0.000 0.040		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐								
		OTHER :							

5	2.250 Support	0.010Inches ± 0.000	0.000 0.010
6	2.250 Support	0.240Inches ± 0.000	0.000 0.240
7	2.250 Support	0.290Inches ± 0.000	0.000 0.290
8	2.250 Support	0.115Inches ± 0.000	0.000 0.115
9	2.250 Support	0.454Inches ± 0.000	0.000 0.454
10	2.250 Support	2.779Inches ± 0.000	0.000 2.779
11	2.250 Support	0.240Inches ± 0.000	0.000 0.240
12	2.250 Support	1.002Inches ± 0.000	0.000 1.002
13	2.250 Support	0.053Inches ± 0.000	0.000 0.053
14	2.250 Support	0.257Inches ± 0.000	0.000 0.257
15	2.250 Support	1.663Inches ± 0.000	0.000 1.663
16	2.250 Support	0.053Inches ± 0.000	0.000 0.053
17	2.250 Support	0.022Inches ± 0.000	0.000 0.022

Plex 11/12/18 1:03 PM Dart.lajeunesse.marie



Container No: S140903



Part: D2891 - 1

Job No: 186181

Serial No/Batch: S140903

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
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CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 12/20/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DART AEROSPACE LTD		Work Order:	
Description: Ø2.250 Support		Part Number: D2891-1	
Inspection Dwg: D2891		Rev: B	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.1910	.1910	.1900	.1900	.1900
AB	0.240	0.260		.250	.250	.250	.250	.250
AC	0.115	0.150		.126	.126	.124	.125	.124
AD	0.040	0.060		.050	.050	.051	.051	.050
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		R.250	R.250	R.250	R.250	R.250
AG	0.290	0.310		.291	.291	.300	.300	.295
AH	0.115	0.150		.136	.136	.135	.135	.136
AI	0.454	0.474		.463	.463	.461	.461	.461
AJ	2.779	2.789		2.783	2.783	2.782	2.781	2.781
AK	0.240	0.260		R.250	R.250	R.250	R.250	R.250
AL	1.002	1.042		1.040	1.040	1.036	1.038	1.036
AM	0.053	0.073		R.063	R.063	R.063	R.063	R.063
AN	0.257	0.262		.2570	.2570	.2590	.2570	.2570
AO	1.663	1.683		1.673	1.673	1.673	1.673	1.673
AP	0.053	0.073		R.063	R.063	R.063	R.063	R.063
AQ	0.022	0.042		R.032	R.032	R.032	R.032	R.032
AR								
AS								
AT								
Accept/Reject								

Measured by:	<i>M.M.</i>	Date:	2019/01/06
Audited by:	<i>SK</i>	Date:	19/01/08
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Ø2.250 Support		Part Number: D2891-1	
Inspection Dwg: D2891		Rev: B	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6 ₁	7 ₂	8 ₃	9 ₄	10 ₅
HAAS Section								
AA	0.188	0.193		.190 ϕ	.190 ϕ	.190 ϕ	.190 ϕ	.190 ϕ
AB	0.240	0.260		.249	.249	.249	.249	.249
AC	0.115	0.150		.124	.124	.124	.124	.124
AD	0.040	0.060		.050	.050	.050	.050	.050
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		R.250	R.250	R.250	R.250	R.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.135	.135	.135	.135	.135
AI	0.454	0.474		.461	.461	.461	.461	.461
AJ	2.779	2.789		2.781	2.781	2.781	2.781	2.781
AK	0.240	0.260		R.250	R.250	R.250	R.250	R.250
AL	1.002	1.042		1.038	1.038	1.038	1.038	1.038
AM	0.053	0.073		R.063	R.063	R.063	R.063	R.063
AN	0.257	0.262		.257 ϕ	.257 ϕ	.257 ϕ	.257 ϕ	.257 ϕ
AO	1.663	1.683		1.673	1.673	1.673	1.673	1.673
AP	0.053	0.073		R.063	R.063	R.063	R.063	R.063
AQ	0.022	0.042		R.032	R.032	R.032	R.032	R.032
AR								
AS								
AT								
Accept/Reject								

Measured by: M.M. **Date:** 2019/01/07

Audited by: [Signature] **Date:** 19/01/08

Preliminary Approval: **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	<u>[Signature]</u>